P19790.A07

#16/BM 8-1-02 (10/3)

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellants : Dr. Günter HALMSCHLAGER et al.

Group Art Unit: 1731

Appln. No. : 09/646,119

Examiner: J. Fortuna

Filed : January 21, 2000

§ 371 Date : October 30, 2000

For : MACHINE AND PROCESS FOR PRODUCING A MULTI-LAYERED FIBROUS WEB

APPEAL BRIEF UNDER 37 C.F.R. § 1.192

Commissioner of Patents and Trademarks
Washington, D.C. 20231

Sir:

This appeal is from the Examiner's final rejection of claims 46 - 97 as set forth in the Final Official Action of January 29, 2002.

A Notice of Appeal in response to the January 29, 2002 Final Office Action was filed May 29, 2002, along with a Request for a One-month Extension of Time. Further, the instant Appeal Brief is being timely submitted by the two-month date from the Notice of Appeal of July 29, 2002.

The requisite fee under 37 C.F.R. 1.17(c) in the amount of $ 320.00 for the filing of the Appeal Brief is being paid by check submitted herewith. However, if for any reason the necessary fee is not associated with this file, the Commissioner is authorized to charge the fee for the Appeal Brief and any necessary extension of time fees to Deposit Account No.

19 - 0089.

This appeal brief is being submitted in triplicate, pursuant to 37 C.F.R. 1.192(a).

(1) REAL PARTY IN INTEREST

The real party in interest is Voith Sulzer Papiertechnik Patent GmbH by an assignment recorded in the U.S. Patent and Trademark Office on October 30, 2000 at Reel 011271 and Frame 0625.

(2) RELATED APPEALS AND INTERFERENCES

No related appeals and/or interferences are pending.

(3) STATUS OF THE CLAIMS

Claims 46 - 97, the only claims pending in the instant application, stand finally rejected.

(4) STATUS OF THE AMENDMENTS

No amendments have been entered subsequent to the Final Office Action of January 29, 2002.

(5) SUMMARY OF THE INVENTION

The instant invention is directed to a machine for producing a multi-layered fibrous web, e.g., a paper or cardboard web, in which the layers created by each former are couched together, i.e., connected. (Specification page 1, lines 3 - 6). According to an exemplary embodiment, the instant invention includes a machine arranged so that at least two layers,

which are to be couched together, are formed so that each layer has on one side a higher content of fines, and the at least two layers are guided to the applicable couching zones in such a way that the sides having the higher content of fines come into contact with each other. (Specification page 2, lines 8 - 12). As a result of this arrangement, the web exhibits better layer adhesion, higher retention, a lower risk of so-called "sheet-sealing"effects, less residue during dewatering, less dusting, as well as exhibiting a positive influence on the paper characteristics concerning porosity, roughness, penetration characteristics, and printability. (Specification page 2, lines 14 - 18).

While a number of embodiments are discussed, each embodiment of the invention includes that each of the two layers to be couched together includes a side with a higher content of fines and the layers are guided to a couching zone in such a manner that the sides with the higher fines contents come into contact with each other. (Specification page 6, line 30 - page 7, line 4)

In accordance with the invention, at least one of the at least two layers to be couched together in the manner discussed above can be formed by a gap former. (Specification page 2, line 20 - 21; Figure 3). Moreover, each of the at least two layers to be couched together in accordance with the invention can be formed by gap formers. (Specification page 2, lines 27 - 28; Figure 1). Still further, the layers to be couched together according to the features of the invention can be formed in a variety of manners. (Figures 2, 4, and 5).

(6) **ISSUES**

(A) Whether Claims 46 - 97 are Improperly Rejected Under 35 U.S.C. § 102(b) as being Anticipated by GROSSMANN et al. (U.S. Patent No. 5,635,033) [hereinafter "GROSSMANN"] or LAITINEN et al. (U.S. Patent No. 4,961,824) [hereinafter "LAITINEN"] or TURNER et al. (U.S. Patent No. 4,830,709) [hereinafter "TURNER"] or STECKENREUTER et al. (U.S. Patent No. 5,788,816) [hereinafter "STECKENREUTER"] or BLACKLEDGE et al. (U.S. Patent No. 5,468,348) [hereinafter "BLACKLEDGE"].

(7) **GROUPING OF CLAIMS**

For the purpose of this appeal, Appellants submit that none of the claims stand or fall together. Therefore, each of claims 46 - 97 are separately patentable for the reasons set forth hereinbelow.

(8) **ARGUMENT**

(A) The Rejection of Claims 46 - 97 Under 35 U.S.C. § 102(b) as being Anticipated by GROSSMANN or LAITINEN or TURNER or STECKENREUTER or BLACKLEDGE is in Error, the Rejection Should be Reversed, and the Application Should be Remanded to the Examiner.

The Examiner asserts that each of the applied documents discloses an apparatus and process in which different plies are joined by the side having more fines. Appellants traverse the Examiner's assertions.

Appellants' independent claim 46 recites, *inter alia*, at least two formers for forming at least two layers in which *each layer has a higher content of fines on one side* respectively, and a couching zone in which the at least two layers are couched together such that *each layer's side having a higher content of fines contact each other*, wherein at least one of the at least two formers comprises *at least one gap former*. Appellants' independent claim 75 recites, *inter alia*, forming at least two layers via at least two formers, such that *each layer has a side with a higher fines content*, and couching together the at least two layers in a couching zone so that *the sides with higher fines content contact each other*, wherein at least one of the two layers is formed by *at least one gap former*. Appellants submit that none of the applied documents disclose at least the above-noted features of the instant invention.

Appellants note that, while the Examiner has applied five (5) separate purportedly anticipatory documents, only TURNER has been discussed in any detail. However, Appellants note that the Examiner has not asserted (nor can he) that TURNER discloses at least one gap former, as recited in at least the independent claims. In this regard, Appellants note that the Examiner, with regard to at least TURNER, has essentially not considered the recited feature of the instant invention that at least one of the formers is a *gap former*, but instead has focused the discussion of TURNER with regard to the concentration of fines.

Because TURNER fails to provide any disclosure of using at least one gap former, Appellants submit that TURNER fails to anticipate the instant invention, and that the

Examiner has failed to provide an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. § 102(b).

Moreover, Appellants note that, even assuming, *arguendo*, that TURNER arguably discloses the use of a gap former (which Appellants submit it does not), TURNER fails to provide any teaching (or suggestion) of forming layers in which one side has a higher fines content and couching together the sides of the layers having a higher content of fines, as recited in at least the independent claims.

In the final Office Action, the Examiner has quoted column 2, lines 3 - 18, which sets forth a process to prepare the ply faces for ply bonding engagement by having "more fines and less fillers at their surface." Appellants submit that, while this passage clearly supports a position that the quantity of fines at the bonding surface is greater than a quantity of fillers (which is not what is recited in the instant claims), there is no suggestion that the layers are formed so that which *each layer has a higher content of fines on one side*, which is recited in the pending claims, and certainly no disclosure of at least one gap former.

In fact, Appellants note that TURNER discloses that both web surfaces are similarly prepared. In this regard, Appellants direct the Examiner's attention to column 1, lines 52 - 57, which discloses that the top ply is produced to have "a more uniform distribution of fines, fillers, and fibers on *both its sides*, thus, providing its surfaces with a greater affinity for ply bonding." [emphasis added].

Thus, Appellants submit that, if TURNER seeks to obtain a uniform distribution of fines on both sides, this document fails to provide any disclosure or even any suggestion of producing a web ply having a higher fines content on one side, as recited in Appellants' independent claims.

Moreover, because TURNER fails to provide any disclosure of preparing web plies to be bonded together such that each layer has a higher fines content on one side, and fails to provide any disclosure of at least one gap former, Appellants submit that there is certainly no disclosure or suggestion of couching together the sides having the higher fines content, as is also recited in the independent claims.

Thus, Appellants submit that, in contrast to the features of the instant invention, TURNER fails to disclose an apparatus having at least two formers, including at least one gap former, for forming at least two layers in which *each layer has a higher content of fines on one side respectively*, and a couching zone in which the at least two layers are couched together such that *each layer's side having a higher content of fines contact each other*, as recited in at least independent claim 46. Moreover, Appellants submit that TURNER also fails to disclose a process including forming at least two layers via at least two formers, including at least one gap former, such that *each layer has a side with a higher fines content*, and couching together the at least two layers in a couching zone so that *the sides with higher fines content contact each other*, as recited in at least independent claim 75.

Appellants further submit that GROSSMANN, LAITINEN, BLACKLEDGE, and STECKENREUTER each fail to disclose the above-noted subject matter of the instant invention. In particular, Appellants note that the none of the applied documents provide any teaching that each layer is formed to have a higher fines content on one side than on the other, and certainly none of these documents discloses that the layers are couched together so that the sides having the higher fines content contact each other, as recited in at least independent claims 46 and 75.

While the Examiner asserts that these additional documents teach multi-ply papers having plies bonded by the air side of the ply, that it is well known that this air side produces a side of the web with the most fines, and that the air sides are bonded together, the Examiner has not pointed to any specific disclosure in these documents (or anywhere else) to support his assertions.

Further, contrary to the Examiner's assertions, no admission has been made by Appellants that merely forming a web on a single wire produces a higher content of fines on the unsupported side, nor have Appellants admitted that it is well known that the unsupported side contains the most fines due to less dewatering. While the "Background of the Invention" section of the instant application identifies a number of known formers, this disclosure also sets forth specific action necessary to achieve a concentration of fines at a particular side of the web.

Further, Appellants submit that, while STECKENREUTER discloses the use of a gap former, none of the applied documents provide any disclosure of using at least two formers, at least one of which is a gap former, to form at least two layers in which each layer has a side with a higher content of fines, and couching the sides with the higher content of fines together. Moreover, the applied art likewise fails to disclose or suggest any intention in these processes to form a web layer with a gap former in which the layer has a higher content of fines on one side, as recited in at least Appellants' independent claims.

Appellants note that, while the additional documents applied by the Examiner provide some disclosure of obtaining a greater concentration of fines at the bonding surface, there is no teaching or suggestion that the individual layers in the applied art are formed such that each layer has a higher content of fines on one side, as recited in the pending claims, and certainly no teaching or suggestion that this is achieved through the use of at least one gap former.

Further, Appellants note that there is no disclosure in the applied art that the apparatuses disclosed in each applied document can produce web plies in which each web ply has higher fines content on one side of the web, nor has the Examiner has provided any documentary evidence that any of these apparatuses could. Appellants submit that, as the web plies cannot be produced in the manner recited in the pending claims, the apparatus cannot join together sides of the web plies having the higher fines content.

Because the applied documents fail to disclose at least the above-noted features of the instant invention, Appellants submit that the applied art fails to disclose each and every recited feature of the instant invention. Accordingly, Appellants submit that the Examiner has failed to establish an adequate evidentiary basis to support a rejection of anticipation under 35 U.S.C. § 102(b), and that the instant rejections are improper and should be withdrawn.

Further still, Appellants submit that even if it is considered that the prior art documents anticipate the invention recited in the independent claims, which Appellants submit they do not, the applied documents fail to anticipate the various recited parameters of the formers and/or their arrangement within the apparatus for producing the multilayered web in accordance with the features of the instant invention. Thus, Appellants submit that claims 47 - 74 and 76 - 97 are allowable at least for the reason that these claims depend from allowable base claims and because these claims recite additional features that further define the present invention. Moreover, Appellants further submit that claims 47 - 74 and 76 - 97 are separately patentable over any of GROSSMANN or LAITINEN or TURNER or STECKENREUTER or BLACKLEDGE. In particular, Appellants submit that none of the applied documents anticipates, *inter alia*, the fibrous web comprises one of a paper web and cardboard web, as recited in claim 47; said at least one gap former comprises two circulating continuous dewatering belts convergingly arranged to form a headbox nip, and in which said

dewatering belts are guided in an area of said headbox nip over a forming element, as recited in claim 48; a headbox arranged to supply a fibrous suspension to said headbox nip, as recited in claim 49; said forming element comprises a forming roll, as recited in claim 50; said at least one gap former comprises a first gap former and a second gap former arranged to form at least two layers, wherein the higher content of fines side of said at least two layers occurs on a forming element side, as recited in claim 51; the web travel directions of said first and second gap formers are opposite each other, as recited in claim 52; a first layer created in said first gap former is guided together with at least one of said two dewatering belts around a deflection element, and then introduced via a continuous belt, traveling in a generally opposite direction to a stream direction of said headbox, into said couching zone in which the first layer and a second layer formed by said second gap former are couched together so that their sides having a higher content of fines come into contact with each other, as recited in claim 53; said deflection element comprises a deflection roll, as recited in claim 54; the first layer is guided around said deflection element together with an outer dewatering belt of said two dewatering belts, which does not come into contact with said forming element, and which is introduced into said couching zone via said outer dewatering belt, as recited in claim 55; said two dewatering belts are guided around said deflection element, and an inner dewatering belt of said two dewatering belts is separated from said outer dewatering belt which entrains the first layer following said deflection element, as recited in claim 56;

said outer dewatering belt of said first gap former is guided in a generally horizontal direction, at least up to said couching zone, as recited in claim 57; a fourdrinier former, wherein a third layer is created by said fourdrinier former and sheet formation of the third layer occurs with the higher content of fines on an outer side of the third layer facing away from said continuous belt, wherein the first layer is guided over said deflection element and is couched together with the third layer; and wherein the first layer and third layer are introduced via said continuous belt into said couching zone in which the first layer and second layers, are couched together so that their sides having higher content of fines come into contact with each other, as recited in claim 58; said outer dewatering belt of said first gap former is separated in web travel direction in front of said deflection element from an inner dewatering belt and the first layer is guided around said deflection element only together with said inner dewatering belt, as recited in claim 59; the third layer and the first layer are couched together in the area of at least one of said deflection element and in a couching roll, as recited in claim 60; after separation of said two dewatering belts of said second gap former, the second layer is introduced together with said outer dewatering belt into said couching zone in which the first and second layers are couched together so that their sides having a higher content of fines come into contact with each other, as recited in claim 61; a first layer of the at least two layers to be couched together, is created by a fourdrinier former and sheet formation of the first layer occurs with the higher content of fines on an

outer side facing away from a continuous wire, and wherein a second layer is created by said at least one gap former and sheet formation occurs in the second layer with a higher content of fines on the forming element side, as recited in claim 62; a stream direction of a headbox associated with said first gap former correlates in general with the travel direction of the first layer created by said fourdrinier former, as recited in claim 63; the second layer created by said at least one gap former is introduced, after a separation of said two dewatering belts of said at least one gap former, together with said outer dewatering belt into said couching zone in which the second layer is joined with said continuous belt for the first and second layers to be couched together, as recited in claim 64; said continuous wire is guided in said couching zone in a generally horizontal direction, as recited in claim 65; a second gap former arranged to form a third layer, wherein sheet formation of the third layer occurs with a higher content of fines on a forming element side, and wherein the third layer is couched together with the second layer in a second couching zone, as recited in claim 66; the stream direction of a headbox associated with said second gap former corresponds to the travel direction of the first layer created by said fourdrinier former, as recited in claim 67; the third layer is introduced after separation of said two dewatering belts of said second gap former together with said outer dewatering belt into said second couching zone, wherein the second layer is brought together with said continuous belt for couching together the second and third layers formed by said first and second gap formers, as recited in claim 68; said continuous wire is

guided at least in the area of said couching zones in a generally horizontal direction, as recited in claim 69; at least one additional gap former arranged for the formation of an at least three-layered fibrous web, wherein sheet formation of the additional layer occurs with a higher content of fines on the forming element side, wherein the additional layer is couched in an additional couching zone with one of the at least two layers formed by the first or second gap former, and where at least one of the at least two layers is couched together with the additional layer so that their sides having higher content of fines come into contact with each other, as recited in claim 70; the stream direction of said headbox associated with said at least one additional gap former corresponds to the travel direction of the fibrous web to be created, as recited in claim 71; at least one of a multi-layered headbox and a single layered headbox is provided, as recited in claim 72; at least one single layered headbox is provided, as recited in claim 73; uniform pressure dewatering elements for web dewatering, as recited in claim 74; the fibrous web comprises one of a paper web or a cardboard web, as recited in claim 76; the at least one gap former comprises two circulating continuous dewatering belts that run together forming a headbox nip and which are guided in the area of the headbox nip, loaded with a fibrous suspension by a headbox, over a forming element, as recited in claim 77; the forming element comprises a forming roll, as recited in claim 78; the at least one gap former comprises a first gap former and a second gap former arranged to form at least two layers, wherein the higher content of fines side of said at least two layers occurs on a forming

element side, as recited in claim 79; the first and second gap formers are operated in opposite web travel directions, as recited in claim 80; a first layer formed in the first gap former is guided together with at least one of the two dewatering belts around a deflection element, and then via a continuous belt is introduced in a direction generally opposite to the travel direction of a first headbox into the couching zone in which the first layer and a second layer formed by the second gap former are couched together so that their sides having a higher content of fines come into contact with each other, as recited in claim 81; the deflection element comprises a deflection roll, as recited in claim 82; the first layer created in the first gap former is guided together with an outer dewatering belt, which does not come into contact with the forming element, around the deflection element and introduced into the couching zone via the outer dewatering belt, as recited in claim 83; the two dewatering belts are guided around the deflection element and the an dewatering belt is separated from the outer dewatering belt entraining the layer consecutive to the deflection element, as recited in claim 84; a third layer is created by a fourdrinier former and sheet formation of the third layer occurs with the higher content of fines on an outer side facing away from the continuous belt, wherein the first layer is guided over the deflection element and is couched together with the third layer formed by the fourdrinier former, and wherein the first and third layers are introduced via the continuous belt into the couching zone in which the layers formed by the first and third formers are couched together so that their sides having a higher

content of fines come into contact with each other, as recited in claim 85; the outer dewatering belt of the first gap former is separated in web travel direction in front of the deflection element from the inner dewatering belt and the first layer is guided around the deflection element only together with the inner dewatering belt, as recited in claim 86; the third layer and the first layer formed in the first gap former are couched together in the area of at least one of the deflection element and a couching roll, as recited in claim 87; the second layer is guided after the separation of the two dewatering belts of the second gap former together with the outer dewatering belt to the couching zone, in which the first and second layers are couched together so that their sides of higher content of fines come into contact with each other, as recited in claim 88; the first of the at least two layers to be couched together is created by a fourdrinier former and sheet formation of the first layer occurs with a higher content of fines on the outside facing away from the continuous wire, and the second layer is created by the at least one gap former and sheet formation occurs in the second layer with a higher content of fines on a forming element side, as recited in claim 89; the stream direction of a headbox associated with the first gap former correlates in general with the travel direction of the first layer created by the fourdrinier former, as recited in claim 90; the second layer created by the at least one gap former is guided to the couching zone after separation of the two dewatering belts of the at least one gap former together with the outer dewatering belt, in which the second layer is joined together with the continuous

belt for the first and second layers to be couched together, as recited in claim 91; a second gap former is arranged to form a third layer wherein sheet formation of the third layer occurs with a higher content of fines on the forming element side, and wherein the third layer is couched together with the second layer in a second couching zone, as recited in claim 92; the stream direction of a headbox associated with the second gap former corresponds to the travel direction of the first layer formed by the fourdrinier former, as recited in claim 93; the third layer is introduced after separation of the two dewatering belts of the second gap former together with the outer dewatering belt into the second couching zone in which it is brought together with the continuous belt for the couching of the second and third layer formed by the first and second gap formers, as recited in claim 94; at least one additional gap former is arranged for the formation of an at least three-layered fibrous web, wherein sheet formation of the additional layer occurs with a higher content of fines on the forming element side, wherein the additional layer is couched in an additional couching zone with one of the at least two layers formed by the first or second gap former, and where at least one of the at least two layers is couched together with the additional layer so that their sides having higher content of fines come into contact with each other, as recited in claim 95; the stream direction of a headbox associated with the additional gap former corresponds to the travel direction of the fibrous web to be created, as recited in claim 96; and at least one of a multi-layered headbox and single-layered headbox is used, as recited in claim 97.

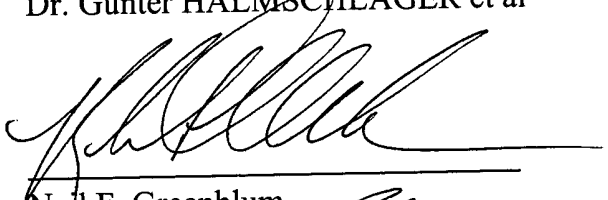
Accordingly, Appellants request that the Board reverse the Examiner's decision to finally reject claims 46 - 97 under 35 U.S.C. § 102(b), and that the application be remanded to the Examiner for withdrawal of the rejection over GROSSMANN or LAITINEN or TURNER or STECKENREUTER or BLACKLEDGE and an early allowance of all claims on appeal.

(B) Conclusion

Claims 46 - 97 are patentable under 35 U.S.C. § 102(b) over GROSSMANN or LAITINEN or TURNER or STECKENREUTER or BLACKLEDGE. Specifically, the applied art of record fails to anticipate the invention recited in Appellants' claims 46 - 97. Accordingly, Appellants respectfully request that the Board reverse the outstanding rejections of the claims 46 - 97 under 35 U.S.C. § 102(b) and remand the application to the Examiner for withdrawal of the rejection.

Thus, Appellant respectfully submits that each and every pending claim of the present application meets the requirements for patentability under 35 U.S.C. § 102(b), and that the present application and each pending claim are allowable over the prior art of record.

Respectfully submitted,
Dr. Günter HALMSCHLAGER et al



Neil F. Greenblum
Reg. No. 28,394

P19790.A07

July 26, 2002
GREENBLUM & BERNSTEIN, P.L.C.
1941 Roland Clarke Place
Reston, VA 20191
(703) 716-1191

Attachments: Appendix: Claims on Appeal

APPENDIX

CLAIMS ON APPEAL

46. A machine for the production of a multi-layered fibrous web, comprising:

at least two formers for forming at least two layers in which each layer has a higher content of fines on one side respectively; and

a couching zone in which the at least two layers are couched together such that each layer's side having a higher content of fines contact each other;

wherein at least one of the at least two formers comprises at least one gap former.

47. The machine according to claim 46, wherein the fibrous web comprises one of a paper web and cardboard web.

48. The machine according to claim 46, wherein said at least one gap former comprises two circulating continuous dewatering belts convergingly arranged to form a headbox nip, and in which said dewatering belts are guided in an area of said headbox nip over a forming element.

49. The machine according to claim 48, further comprising a headbox arranged to supply a fibrous suspension to said headbox nip.

50. The machine according to claim 48, wherein said forming element comprises a forming roll.

51. The machine according to claim 49, wherein said at least one gap former comprises a first gap former and a second gap former arranged to form at least two layers,

wherein the higher content of fines side of said at least two layers occurs on a forming element side.

52. The machine according to claim 51, wherein the web travel directions of said first and second gap formers are opposite each other.

53. The machine according to claim 52, wherein a first layer created in said first gap former is guided together with at least one of said two dewatering belts around a deflection element, and then introduced via a continuous belt, traveling in a generally opposite direction to a stream direction of said headbox, into said couching zone in which the first layer and a second layer formed by said second gap former are couched together so that their sides having a higher content of fines come into contact with each other.

54. The machine according to claim 53, wherein said deflection element comprises a deflection roll.

55. The machine according to claim 53, wherein the first layer is guided around said deflection element together with an outer dewatering belt of said two dewatering belts, which does not come into contact with said forming element, and which is introduced into said couching zone via said outer dewatering belt.

56. The machine according to claim 55, wherein said two dewatering belts are guided around said deflection element, and an inner dewatering belt of said two dewatering belts is separated from said outer dewatering belt which entrains the first layer following said

deflection element.

57. The machine according to claim 55, wherein said outer dewatering belt of said first gap former is guided in a generally horizontal direction, at least up to said couching zone.

58. The machine according to claim 53, further comprising a fourdrinier former, wherein a third layer is created by said fourdrinier former and sheet formation of the third layer occurs with the higher content of fines on an outer side of the third layer facing away from said continuous belt;

wherein the first layer is guided over said deflection element and is couched together with the third layer; and

wherein the first layer and third layer are introduced via said continuous belt into said couching zone in which the first layer and second layers, are couched together so that their sides having higher content of fines come into contact with each other.

59. The machine according to claim 55, wherein said outer dewatering belt of said first gap former is separated in web travel direction in front of said deflection element from an inner dewatering belt and the first layer is guided around said deflection element only together with said inner dewatering belt.

60. The machine according to claim 58, wherein the third layer and the first layer are couched together in the area of at least one of said deflection element and in a couching

roll.

61. The machine according to claim 53, wherein after separation of said two dewatering belts of said second gap former, the second layer is introduced together with said outer dewatering belt into said couching zone in which the first and second layers are couched together so that their sides having a higher content of fines come into contact with each other.

62. The machine according to claim 48, wherein a first layer of the at least two layers to be couched together, is created by a fourdrinier former and sheet formation of the first layer occurs with the higher content of fines on an outer side facing away from a continuous wire, and wherein a second layer is created by said at least one gap former and sheet formation occurs in the second layer with a higher content of fines on the forming element side.

63. The machine according to claim 62, wherein a stream direction of a headbox associated with said first gap former correlates in general with the travel direction of the first layer created by said fourdrinier former.

64. The machine according to claim 62, wherein the second layer created by said at least one gap former is introduced, after a separation of said two dewatering belts of said at least one gap former, together with said outer dewatering belt into said couching zone in which the second layer is joined with said continuous belt for the first and second layers to

be couched together.

65. The machine according to claim 64, wherein said continuous wire is guided in said couching zone in a generally horizontal direction.

66. The machine according to claim 62, further comprising a second gap former arranged to form a third layer, wherein sheet formation of the third layer occurs with a higher content of fines on a forming element side, and wherein the third layer is couched together with the second layer in a second couching zone.

67. The machine according to claim 66, wherein the stream direction of a headbox associated with said second gap former corresponds to the travel direction of the first layer created by said fourdrinier former.

68. The machine according to claim 66, wherein the third layer is introduced after separation of said two dewatering belts of said second gap former together with said outer dewatering belt into said second couching zone, wherein the second layer is brought together with said continuous belt for couching together the second and third layers formed by said first and second gap formers.

69. The machine according to claim 66, wherein said continuous wire is guided at least in the area of said couching zones in a generally horizontal direction.

70. The machine according to claim 53, further comprising at least one additional gap former arranged for the formation of an at least three-layered fibrous web, wherein sheet

formation of the additional layer occurs with a higher content of fines on the forming element side, wherein the additional layer is couched in an additional couching zone with one of the at least two layers formed by the first or second gap former, and where at least one of the at least two layers is couched together with the additional layer so that their sides having higher content of fines come into contact with each other.

71. The machine according to claim 70, wherein the stream direction of said headbox associated with said at least one additional gap former corresponds to the travel direction of the fibrous web to be created.

72. The machine according to claim 70, wherein at least one of a multi-layered headbox and a single layered headbox is provided.

73. The machine according to claim 48, wherein at least one single layered headbox is provided.

74. The machine according to claim 46, further comprising uniform pressure dewatering elements for web dewatering.

75. A process for the production of a multi-layered fibrous web, comprising:

forming at least two layers via at least two formers, such that each layer has a side with a higher fines content;

couching together the at least two layers in a couching zone so that the sides with higher fines content contact each other;

wherein at least one of the at least two layers is formed by at least one gap former.

76. The process according to claim 75, wherein the fibrous web comprises one of a paper web or a cardboard web.

77. The process according to claim 75, wherein the at least one gap former comprises two circulating continuous dewatering belts that run together forming a headbox nip and which are guided in the area of the headbox nip, loaded with a fibrous suspension by a headbox, over a forming element.

78. The process according to claim 77, wherein the forming element comprises a forming roll.

79. The process according to claim 77, wherein the at least one gap former comprises a first gap former and a second gap former arranged to form at least two layers, wherein the higher content of fines side of said at least two layers occurs on a forming element side.

80. The process according to claim 79, wherein the first and second gap formers are operated in opposite web travel directions.

81. The process according to claim 80, wherein a first layer formed in the first gap former is guided together with at least one of the two dewatering belts around a deflection element, and then via a continuous belt is introduced in a direction generally opposite to the travel direction of a first headbox into the couching zone in which the first layer and a second

layer formed by the second gap former are couched together so that their sides having a higher content of fines come into contact with each other.

82. The process according to claim 81, wherein the deflection element comprises a deflection roll.

83. The process according to claim 81, wherein the first layer created in the first gap former is guided together with an outer dewatering belt, which does not come into contact with the forming element, around the deflection element and introduced into the couching zone via the outer dewatering belt.

84. The process according to claim 83, wherein the two dewatering belts are guided around the deflection element and the an dewatering belt is separated from the outer dewatering belt entraining the layer consecutive to the deflection element.

85. The process according to claim 81, wherein a third layer is created by a fourdrinier former and sheet formation of the third layer occurs with the higher content of fines on an outer side facing away from the continuous belt;

wherein the first layer is guided over the deflection element and is couched together with the third layer formed by the fourdrinier former; and

wherein the first and third layers are introduced via the continuous belt into the couching zone in which the layers formed by the first and third formers are couched together so that their sides having a higher content of fines come into contact with each other.

86. The process according to claim 85, wherein the outer dewatering belt of the first gap former is separated in web travel direction in front of the deflection element from the inner dewatering belt and the first layer is guided around the deflection element only together with the inner dewatering belt.

87. The process according to claim 85, wherein the third layer and the first layer formed in the first gap former are couched together in the area of at least one of the deflection element and a couching roll.

88. The process according to claim 83, wherein the second layer is guided after the separation of the two dewatering belts of the second gap former together with the outer dewatering belt to the couching zone, in which the first and second layers are couched together so that their sides of higher content of fines come into contact with each other.

89. The process according to claim 75, wherein the first of the at least two layers to be couched together is created by a fourdrinier former and sheet formation of the first layer occurs with a higher content of fines on the outside facing away from the continuous wire, and the second layer is created by the at least one gap former and sheet formation occurs in the second layer with a higher content of fines on a forming element side.

90. The process according to claim 89, wherein the stream direction of a headbox associated with the first gap former correlates in general with the travel direction of the first layer created by the fourdrinier former.

91. The process according to claim 89, wherein the second layer created by the at least one gap former is guided to the couching zone after separation of the two dewatering belts of the at least one gap former together with the outer dewatering belt, in which the second layer is joined together with the continuous belt for the first and second layers to be couched together.

92. The process according to claim 89, wherein a second gap former is arranged to form a third layer wherein sheet formation of the third layer occurs with a higher content of fines on the forming element side, and wherein the third layer is couched together with the second layer in a second couching zone.

93. The process according to claim 92, wherein the stream direction of a headbox associated with the second gap former corresponds to the travel direction of the first layer formed by the fourdrinier former.

94. The process according to claim 92, wherein the third layer is introduced after separation of the two dewatering belts of the second gap former together with the outer dewatering belt into the second couching zone in which it is brought together with the continuous belt for the couching of the second and third layer formed by the first and second gap formers.

95. The process according to claim 79, wherein at least one additional gap former is arranged for the formation of an at least three-layered fibrous web, wherein sheet

formation of the additional layer occurs with a higher content of fines on the forming element side, wherein the additional layer is couched in an additional couching zone with one of the at least two layers formed by the first or second gap former, and where at least one of the at least two layers is couched together with the additional layer so that their sides having higher content of fines come into contact with each other.

96. The process according to claim 95, wherein the stream direction of a headbox associated with the additional gap former corresponds to the travel direction of the fibrous web to be created.

97. The process according to claim 77, wherein at least one of a multi-layered headbox and single-layered headbox is used.